Scientific Medicine’s Foes Seeking Public Health Pros’ Approbation

Chicago

By Anne S. Moffat and David R. Zimmerman

Some naturopaths and their alternative health allies have petitioned the American Public Health Association (APHA), the nation’s preeminent professional public health organization: They want APHA to endorse the licensure of naturopathic practitioners; grant them full acceptance as health care professionals; and invite them to become APHA members.

The petitioners have taken this step even though some naturopaths disdain, and even vehemently oppose, routine immunizations, antibiotics and other synthetic drugs, major surgery, and much of the rest of scientific medicine — which has been the cornerstone of public health progress in this century.

Some advocates of scientific medicine regard naturopaths as quacks (see stories, page 4).

Risks Cited

The primary reason for seeking the naturopaths’ entrée, advocates said at APHA’s annual meeting here last month, is to protect the public from poorly-trained naturopathic practitioners, whom they say are a public health menace. But the advocates’ other message, in discussions here, was a desire to “reach out” to various APHA-recognized health care groups, thereby bolstering what several said is APHA’s declining membership.

However, APHA’s membership is not declining, an official, Richard A. Levinson, M.D., in Washington, D.C. says; it’s slowly rising.

Licensing Is Issue

“We want the Association to go on record in support of states’ licensing naturopaths,” declared public health specialist Alan J. Trachtenberg, M.D., who was a founder, and until recently the acting chairman of APHA’s alternative and complementary health practices special primary interest group (SPIG). This group met here as part of APHA’s annual convention. (Trachtenberg is an APHA member and a newly chosen member of its science board. He is a U.S. Public Health Service drug addiction specialist, and was the first chief of NIH’s Office of Alternative Medicine.)

The APHA thus far has not accepted the SPIG’s petition on the naturopath’s behalf (see box, page 5).

“The main issue is public safety!” the SPIG’s newly elected chairman, Joe Pizzorno, N.D., told PROBE at the group’s meeting.

“There are several examples of patients experiencing harm as a result of these bogus practices,” charged Pizzorno, who is president of Bastyr University, in Seattle, one of the three state-accredited naturopathic colleges in the U.S.

Cooperation Sought

Many of these naturopaths, Pizzorno warned, get their training in correspondence courses, and receive their N.D. degrees from diploma mills, by mail. “This is a huge public health problem,” he warned.

Efforts to get the state-licensed naturopaths into the APHA were discussed at the SPIG meeting, which was attended by a dozen of its 200 members. “We want to work” with naturopaths who belong to the American Association of Naturopathic Physicians (AANP), Trachtenberg said. The AANP is one of several naturopathic organizations in the U.S.; it upholds four-
Follow-up
Columbine Autopsies Are Still Withheld

Last June, we complained about TV’s unctuous overplay of funereal events after the Columbine high school shooting. We compared this coverage with the conspicuously sparse accounts of autopsies on the two teenage shooters, Eric Harris and Bryan Klebold.

We also passed along a colleague’s report of a rumor — apparently, but not certainly, incorrect — that one of the shooters had shot the other.

We’ve now been able to follow up a little on this story. Here’s what we found:

First, we are by no means the only observer who was nauseated by the media circus. Undertaker Thomas Lynch, of Milford, Mich., in a recent New York Times op-ed piece (Oct. 30) slammed “Tragedy Cam and Grief TV” for turning couch potatoes into ersatz mourners.

Easy Grief Offered

“These mourners needn’t budge,” Lynch says. “The catharsis is user-friendly, the ‘healing’ home-delivered . . . . When viewers have had enough, they can order a pizza, flick to the Movie Channel . . . . and wait until the helicopters locate another heartbreak to barge in on.”

One question that we wanted answered was whether autopsies on the shooters, who committed suicide in the school library, contained any clues to why they did what they did. The answer, apparently, is no.

Nancy E. Bodelson, M.D., an emergency medical specialist who is the Jefferson County, Colo., coroner, said by phone last month that neither boy’s autopsy disclosed a brain tumor — a possible cause of aberrant violent behavior.

Asked about the rumor that one boy may have shot the other, Bodelson first said she “didn’t even want to discuss it,” then relented and replied:

“Both [deaths] were ruled suicides.”

She did not say, definitively, that one boy didn’t shoot the other, non-fatally.

Harris Report Released

The reason for the uncertainty is that thus far only one of the two autopsy reports, Harris’s, has been released. Last spring, Bodelson and the Jefferson County district attorney, at the behest of the grieving parents of the shooters’ victims, sealed the autopsy reports. The Denver Post, joined by the Rocky Mountain News, then went to court, demanding that the reports be unsealed. The Post’s attorney Thomas Kelley, said, in a hearing:

“My client gave very serious thought last night and this morning to telling me in this particular case to give the First Amendment a rest. Ultimately, they decided they could not do that because the tragic nature of this case also makes it very important for the public to understand — and for their elective representatives to understand — anything that may shed any light on how these things happened, and how they might be prevented in the future.

Under Colorado law, Kelley said, autopsy reports are public records unless they are part of an ongoing police investigation — which was not the case. He added, in a brief: “Coroners’ autopsy reports are specifically open to public inspection [and newspaper citation] under Colorado’s Open Records Act,” unless a petitioner could show that their release would cause substantial injury to the public interest in a manner that had not been considered by the legislators who passed the law. Otherwise:

“[I]n all cases in which a coroner investigates the cause of death, the autopsy report shall be released to the public.”

Coroner Explains Move

In declining to release the reports, coroner Bodelson told the court:

“I happen to agree with all of the [parents] that I think it would be very traumatic to have these [reports] released. They are very graphic; they are very sad.

“I don’t really understand what would be gained other than hurting the people that have been involved, and to have the whole world discussing what happened to these children and to this teacher.”

The Colorado district court judge, Henry E. Nieto, in Denver, subsequently ruled that he did not have authority to withhold the Harris and Klebold reports. He released them, according to one of his clerks, but allowed the Klebolds a stay to file an appeal to his ruling. Their appeal has been filed in the appellate court. But briefs have not yet been presented, a clerk there said, and any opinion still is “months away.”

Wounds Described

The Harris boy’s autopsy report contains, as the parents’ lawyer declared, “graphic and gruesome details.”

This report, obtained from Bodelson’s office, says the final anatomic diagnosis of 18-year-old Eric’s cause of death was:

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Scientists Win 2 Key Fights: Office of Research Integrity Is Defanged; Fed Adopts Safer ‘Misconduct’ Definition

Two long and damaging conflicts between scientists and the federal government appear to have been resolved:

• Ten years after it was created, the misnamed, mismanaged, and recently much-maligned Office of Research Integrity (ORI) has been shorn of its investigative powers by Department of Health and Human Services (HHS) chief Donna Shalala.

• HHS has decided to adopt a tightly circumscribed definition of scientific misconduct: "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results." A dangerous catch-all phrase — "other practices that seriously deviate" from scientific practices — has been rejected.

"I'm ecstatic about how this has come out!" University of California, Berkeley, biochemist Howard Schachmann, Ph.D., one of the leaders in the battle to block the wider, and easily abusable phrase told Science (Oct. 29). Schachmann spoke for the Federation of American Societies for Experimental Biology, which led opposition to the all-inclusive definition.

Wheels Grind Slowly . . .

Sec. Shalala changed ORI's status, from an investigative agency into a consultative body: It now will counsel universities on how to prevent scientific misconduct. This change was first proposed four years ago by Harvard reproductive biologist Kenneth Ryan, Ph.D., and a federal panel that he chaired to evaluate ORI's activities.

Why has this taken so long? Answer: bureaucratic red tape.

Autopsies... continued from previous page

"through and through high energy contact gunshot wound involving the roof of the mouth, associated with (a) extensive lacerations of the scalp and soft tissues of the face; (b) massive fracturing of the skull; (c) evacuation of the brain — cerebral cortex and brain stem; and (d) extensive fracturing of the facial bones.”

The pathologist, Ben Galloway, M.D., commented:

"The autopsy findings in this case reveal that the cause of death is due to massive head injury secondary to a high energy gunshot wound involving the roof of the mouth, consistent with a shotgun. This wound is consistent with self-infliction.”

So: There are no other injuries; Harris put the gun's muzzle in his mouth, and pulled the trigger.

Klebold also killed himself. But the question of whether he had been injured by Harris, or by policemen who had stormed the school, remains unanswered. However, one source close to the case told PROBE that if Klebold had been shot by someone other than himself, that fact undoubtedly would have surfaced by now.

HSS spokesman Damon Thompson, in Washington, explained by phone that it has taken four years to move the Ryan Commission's proposals through HSS's review and recommendation process. He noted, too, that some of the new changes may require congressional action; others can be accomplished by administrative or regulatory action.

"It's been a multi-tiered approach," Thompson said.

One major criticism of ORI has been that it acted as prosecutor, judge, and jury in investigating and punishing individuals accused of scientific misconduct. The new HSS procedures resolve this conflict:

Inquiries and investigations into potential research misconduct will be separated from the decision-making process of determining if misconduct occurred. The ORI will review institutional findings, and will recommend actions and sanctions, when supported by findings, to the assistant secretary for health, who will make the final decisions regarding misconduct, subject to appeal.

ORI fell into disrepute when it eventually lost widely-publicized cases against Nobelist David Baltimore's co-investigator, Thereza Imanishi-Kari, Ph.D., of Tufts, in Boston, retrovirologist Robert Gallo, M.D., then of the NIH, and breast cancer surgical researcher Bernard Fisher, M.D., of the University of Pittsburgh, among others. ORI's actions were stimulated and manipulated by the then powerful congressman John D. Dingell (Dem.-Mich), who used these and other trumped-up cases to brand as "corrupt" American science and scientists.

Witch Hunt Charged

Many victims and observers of Dingell's witch-hunting congressional hearings, including David Baltimore, compared his attack on scientists to the campaign by the late senator Joseph McCarthy (Rep.-Wisc.) to convince the public that the federal government was being secretly undermined by communists.

The new, largely advisory role for ORI was formulated by a review panel headed by HHS Secretary for Health David Satcher, M.D. It stipulates that universities and other federally-supported research institutions will conduct their own investigations into alleged scientific misconduct. ORI will not conduct investigations of its own.

The universities and other institutions will forward any findings of misconduct to ORI, which will review them, and, if appropriate, propose sanctions to the assistant secretary for health (at present, Satcher). Any further investigation, if required, will be carried out by the HHS's inspector-general, the agency's long-standing and noncontroversial legal watchdog. The National Science Foundation (NSF) has long conducted investigations into malfeasance in this way, without significant objection from the scientific community.
Naturopathy Pros & Cons Detailed

Pro:

Naturopaths who belong to the American Association of Naturopathic Medicine (AAND) say, on their website and elsewhere, that theirs is a "distinct system of primary health care — an art, science, philosophy, and practice of diagnosis, treatment, and prevention of illness."

The AAND headquarters are in Seattle.

They believe in the healing power of nature, which is the inherent, self-organizing process of all living systems. This healing process is "ordered and intelligent," they believe, and the naturopathic healer's job is to support, facilitate, and augment this process by identifying and removing obstacles to health and recovery.

Naturopaths identify and treat the causes of disease, which is essential if the patient is to recover. They avoid suppressing symptoms, when feasible, since suppressing the symptoms interferes with the healing process.

Naturopaths treat the whole person, including each individual's spiritual health. They say that the multifactorial nature of health and disease requires a personalized and comprehensive approach to diagnosis and treatment. They are committed to creating a world of harmony in which healing can occur.

Naturopathy takes a dim view of routine immunizations and antibiotics. Practitioners do not use major surgery or most synthetic drugs in their practices. They do use these modalities:

- Nutritional medicine, dietetics and therapeutic fasting; medicines of mineral, animal and botanical origin; hygiene and public health measures; manipulative therapies; the use of water, heat, cold, light, electricity, air, earth, electromagnetic and mechanical devices; homeopathy; acupuncture; minor surgery, and natural childbirth.

Naturopaths view the rise of scientific medicine in the 20th century — and all that it has achieved in reducing suffering and prolonging human life — as a "narrow" and "temporary" aberration in what they believe is a centuries-old "evolution of a truly comprehensive view of health care delivery." This view was elucidated recently in the newsletter of the alternative and complementary health practices special primary interest group of the American Public Health Association by Joe Pizzorno, N.D.; he is president of the naturopathic Bastyr University, in Seattle. He adds:

"Naturopathic physicians are trained to know that the vast majority of health advances in recent history are due to improvements in public health, not advances in medical interventions or technology . . . . Naturopathic medicine is the only health care profession that holds and provides training in such a comprehensive view of health and the health care system."

Naturopaths and their practices invite little ground for nuanced views. Either you're for 'em or against 'em. Here are the two opposing outlooks.

Con:

Naturopathy is quackery. Its practitioners are frauds, fools, or, at best, true believers, according to quack-busters who monitor these practitioners.

Naturopathic medicine is the pseudo-scientific opposite — and opponent — of scientific medicine, or "allopathy" as the naturopaths call it. Psychologist Barry L. Beyerstein, Ph.D., of Simon Fraser University in Burnaby, British Columbia, writes, with a colleague, in the Scientific Review of Alternative Medicine (Spring/Summer, '98):

Naturopathy is the most eclectic of 'alternative' practices. It changes its methods in response to popular fads and beliefs. It practices no pool of consistent diagnostic or therapeutic methods. The most notable things that unite the majority of practitioners are a penchant for magical thinking, a weak grasp of basic science, and a rejection of scientific biomedicine.

Beyerstein goes on to say that because naturopathy lacks a coherent theoretical or therapeutic rationale, the patient never knows whether he or she is going to get some reasonable and reasonably harmless advice, like exercise, diet, and stress reduction suggestions, or one or more of an array of scientifically implausible treatments.

Quack-watcher Stephen Barrett, M.D., a retired psychiatrist in Allentown, Pa., says that the "life force" that is the keystone of naturopathic therapy is a "nonmaterial force that transcends the laws of chemistry and physics." Barrett adds: "No scientific evidence supports this doctrine, but a huge body of knowledge, including the entire discipline of organic chemistry, refutes it."

Barrett notes that the late editor of the Journal of the American Medical Association (JAMA), Morris Fishbein, M.D., noted, years ago, that "whereas most cults embrace a single conception as the cause and healing of disease, naturopathy embraces everything in nature."

Naturopaths belong to several different and competitive groups; they take different stands on issues. Thus, while the naturopaths who met at the APHA meeting in Chicago favor licensure, others strongly oppose it, claiming everything they do is already natural and legal. Similarly, while some are only moderately opposed to scientific public health measures, others violently oppose such steps.

The American Naturopathic Association, founded in 1896, claims to be the oldest and most authentic naturopathic group. It is:

- "Opposed to vaccination for smallpox because it does not prevent smallpox, merely pollutes the blood and weakens its power to resist ailments." [Vaccination has eliminated smallpox from the world.]

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Approbation...

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year training of N.D.s.

"The SPIG has been discussing (with APHA staff) the possibility of sending membership invitation mailings to members of the AANP," SPIG member Duchy Brecht, a medical social worker in Washington, wrote recently in the SPIG’s newsletter.

A few N.D.s may already be APHA members, according to Levinson, who is its Executive Director for Programs and Policy. The APHA has an open membership policy for health professionals, he explained. But he said he didn’t know whether any, and if so how many, naturopaths had enrolled.

The AANP does not give its membership on its website, http://aanp.net/WebmasterFAQ.html. But its newsletter’s circulation is under 1,000.

The American Naturopathic Medical Association (ANMA), another naturopathic group, claims 2,000 members on its website. It vigorously opposes licensure.

"Licensure laws will put traditional naturopaths out of business and even worse yet, put them in jail!” ANMA says in red letters on the web.

Vaccines Are Rejected

This view is shared by the American Naturopathic Association, which claims to be the oldest naturopathy organization (founded in 1896). It rejects virtually all of 20th century medicine, including smallpox vaccinations and current routine immunizations.

There was no mention at the November 8 SPIG meeting, in a hotel here, that many naturopaths directly oppose key APHA health professionals’ principles and practices. But in a PROBE interview, chairman Trachtenberg conceded that some alternative health providers use less than ideal practices, some of which are harmful. He cited as examples the use of lead-based therapies by curanderos and by ayurveda practitioners which he says are supported respectively by the Chicano and Indian communities. Not to worry, he said:

"We [established medicine] can help alternative therapists with their practices.”

Trachtenberg conceded that some naturopaths don’t recommend routine immunizations. But he said that this is not the official position of organizations like the AANP.

"We want to work with them [APHA]," naturopathic educator Pizzorno told participants in the SPIG meeting.

Information Exchange Needed

One SPIG meeting participant, preventive health specialist Joan Ryan, M.D., later explained by phone from her home in Libertyville, Ill., that closer ties between naturopaths and the APHA will be valuable. Patients and practitioners both seek — and need — information on alternative methods, she explained. Some of these methods are appropriate; some are not.

"I’m not an advocate of one sort of therapy or another," Ryan said. "They all have their place."

But, she added, she certainly would not advocate treating a heart attack with herbs.

The APHA leadership was not convinced by the SPIG’s 500-word petition for recognition. Their appeal was turned down, Trachtenberg reported. APHA officials asked that the SPIG present a longer, 3,000-word petition for consideration at next year’s APHA annual meeting in Boston, he said.

Progress Seen

"This is a little hard to get passed," he allowed. He took heart, however, from the fact that APHA may soon recognize so-called direct entry midwives, who are neither doctors nor nurses, as members — which, he added, could bode well for the naturopaths next year.

Or it may not.

"It’s a long way away at this point," APHA’s Richard Levinson said by phone from Washington. The organization has a long and difficult review process for policy resolutions, he noted. What is more, "We don’t specifically endorse or recommend professions," he said.

APHA, Levinson explained, "is very much mainstream in terms of science. It would be impossible for it to adopt a policy that was against science."
'Moral Certainty' Threatens Science, Bioethics Chief Warns — Very Blandly

When Harold Shapiro, Ph.D., recently was invited to address scientists at Rockefeller University, in Manhattan, he chose the dire “Stopping Science?” as his topic. But his remarks, late in October, turned out to be quietly foreboding, albeit less than incendiary.

Shapiro’s views are of keen interest to scientists not because of his academic title — he is an economist and president of Princeton University — but, rather, because of a government appointment: He is chairman of the National Bioethics Advisory Commission (NBAC).

This panel is the current battleground between medical science and its moralistic opponents over cloning, fetal research, and other manipulations at the beginning and the end of human life. The moralists assert that these experiments challenge human values. These moralists, both on the Commission and outside of it, include fundamentalist proponents of what Shapiro called “moral prudence” and — more threatening — those opponents who claim to possess “moral certainty” on matters of life, death, and human values.

Problems Cited

Shapiro briefly outlined some current bones of contention. They include what he called conflict between proponents of clinical trials and those who claim an overriding concern for human beings — particularly, concern for people who are unable to freely consent to be in these experiments: prisoners, military personnel, mental patients.

“Human subject protection is a major item of bioethical concern,” the NBAC chief said.

Some scientists, Shapiro noted, think that bioethics is simply “Luddism.” But he made it clear that he does not share this view. He also made it clear that he is on the side of science — as one of the paramount human achievements.

Bioethics’ two concerns, and areas of potential conflict with science, Shapiro said, are:

• What does it mean to be human, in a moral sense — and when does that humanity begin and end?
• How can new scientific knowledge be accommodated to existing moral values? He cited cloning, and more importantly, stem-cell research as threatening — “Janus-faced” — to moralists in this regard.

Scientists, Shapiro warned, have to take “extremely seriously” the “principle of moral prudence.”

Talking May Help

Conversation between proponents of the two camps is the way to resolve issues and move forward, the Princeton president declared. But when asked (by PROBE) in a Q&A whether his commission’s four years of continuous conversation had changed anyone’s mind, he replied:

“I don’t think we changed any point of view of those who claim moral certainty” — either Roman Catholics and other

religionists on one side or pro-science people on the other.

But, he said:

“Most people honestly want to understand these issues on their merit . . . . It’s only the people who are morally certain, on either side, that we haven’t had any effect on.”

Shapiro said that if he were arguing science’s case for them, the best tactic might be to try to “undermine some of their moral certainty.”

The problem, he added, is that science’s exponents are less doggedly committed to their position than are its sharply-focused foes — who threaten future research. The opponents’ intent, he suggested, is to stop science.

Q: Human Values?
A: Valued Humans

The conflict that drags on within and around the National Bioethics Advisory Committee is regularly misconstrued as pitting scientists, who have no moral values, against moralists — who of course do.

This is incorrect:

The goals that both prompt and constrain this research are, simply, human. Take in vitro fertilization, or “test tube babies,” as headline writers call them. The Roman Catholic Church and other religions fought it tooth and nail — and managed to delay and derail R&D in federally-funded American research centers for more than two decades.

‘Test Tube’ Teen Speaks

Yet here, in the New York Times (Oct. 27), a couple of days after Shapiro’s talk at Rockefeller University, is a large picture of a happily smiling 17-year-old girl, Elizabeth Carr. She is the first American to be conceived in a laboratory dish (not a test tube). She looks, and she says that she is, normal, healthy, and happy.

“People still expect me to be somehow different,” Carr says. “I don’t think I’m any different.”

The first test tube baby, Louise Brown, was conceived and born in England, in part because of the research ban in the U.S. She’s now 21, a nurse in Bristol. Since Louise’s birth, 300,000 similar babies have been delivered worldwide, a fifth of them in the U.S. (without benefit of federal research funding).

All are what doctors call “most-valued babies.” They are highly — humanly — valued by their parents, who took the costly and difficult medical steps needed to fulfill what is (we can attest) one of the deepest and most valuable human needs: to bear children. “Be fruitful and multiply!” as it says in The Book.

As far as we know, there have been no reports that these children are any more liable to genetic or developmental
Fully Implantable Artificial Heart Finally Seems Near

Hershey, Pa.

It’s been thirty years since we’ve written much about the artificial heart. Reason: Despite the media hype on two or three newsworthy cases, the major technical advances required for this method to succeed had not been met.

Now, it appears, they have.

This work originates at the Pennsylvania State University’s Hershey Medical Center here.

At a November briefing for the Council for the Advancement of Science Writing, bioengineer Gerson Rosenberg, Ph.D., chief of the school’s artificial organs division, said the major problems have been solved, and a fully-implantable artificial heart is likely to be placed in a heart-failure patient within the next year.

Rules Set Schedules

The first deployment of the Arrow Lionheart™ device, developed here may, however, take place in Germany, due to differences in the regulatory procedures there. A similar device, a heart-assist, which replaces half the heart with a mechanical pump, rather than all of it, already has been implanted in an American patient. Also, several calves gamboling in a nearby meadow are sustained by the whole-heart Lionheart device.

The major problem, that has set back artificial hearts for decades, has been solved, Rosenberg said. The device is fully implantable, meaning that there are no power lines or other connectors leading out of the patient’s body. This significantly decreases the risk of infection, and will free the patients from external monitors and other controls so that they can return home, and — it is hoped — lead relatively normal lives.

Free Time Available

During most of the day, power will be transmitted through the skin electromagnetically, from a transmitter carried in an external over-the-shoulder pack. But, Rosenberg says:

“For the first time, a patient can take off the body pack, and have from 20 to 30 minutes of total freedom” while the heart operates on energy stored in an implanted internal battery. Longer battery-free periods are in the offing when newer, lithium batteries are integrated into the system, he said.

Peak use is 20 watts of power.

The Lionheart device is fully automated. This means that changes in the heart’s rate do not need to be programmed from an outside controller. Rather, the artificial heart responds to changes in vasoconstrictive and vasodilating hormones in the patient’s bloodstream, which express the body’s changing energy requirements to sit, rise, walk, eat, sleep or play actively.

The normal heart circulates between 5 and 20 liters of blood per minute, Rosenberg said. The artificial heart moves 4 to 8 liters. The oxygen saturation of blood moved by the device is essentially normal, he said.

Weights Are Given

The implantable part of the apparatus weighs about three pounds, the external pack about 10.

The device’s cost will be comparable to the cost of transplanting and sustaining a heart transplant, Rosenberg suggested. But there will be the added benefit, over transplant, that no immunosuppressive drugs will be needed for the polymer-skinned implantable device.

When the assist device is implanted and turned on, Rosenberg added, the patient’s “gray” pallor vanishes. He’s “pink, and his body is warm!”

The Hershey bioengineer foresees a second left-ventricular assist implantation this month, December. He’s hopeful that the first whole heart device will be implanted in a dying heart-failure patient next year.

Humans...

continued from previous page

difficulties than normally conceived children. And that, we think, indicates clearly where the line between what is ethically permissible and what isn’t ought to be drawn.

Suppose, as some evidence suggests may be so with cloning, that test tube babies turned out to have diminished life spans, or some other serious disablement. It seems to us that that would be good reason not to do the procedure. We think that parents and doctors, knowing this fact, would be very reluctant to use it. That’s an ethical decision, based on human values.

Should such a procedure be legally banned? Probably. Particularly, if the babies turned out so disabled that their care and survival would be a burden to society. But given these circumstances, we doubt that anyone would want to do it.

Meanwhile, there are these 300,000 — and counting — children growing up, fulfilling one of the strongest human injunctions, whose births were deemed illegitimate, and who wouldn’t be here had the casuists had their way! ■

Diagram shows wholly internal placement of Penn State’s left ventricular assist system. Total implanted artificial heart will be similarly placed, after patient’s diseased natural heart has been removed. (Penn State drawing)
Robotic Arm May Ease Coronary Artery Grafting

Hershey, Pa

It sounds less dramatic than a totally implantable artificial heart (see story, page 7). But, if successful, a second innovation being pursued at the Hershey Medical Center, here, may be far more widely used:

It is a robotic arm that is being developed to perform coronary artery grafts through a tiny, pencil-sized chest incision; the surgeon sits six feet away from the patient, behind a screen that displays an enlarged picture of the operative field from an inserted cardiocamera. He manipulates the robotic arm with two joy sticks.

Using this experimental device, Penn State operators already have shown that they can sever the left internal mammary artery and re-connect it to the left anterior descending artery. Amazingly, the thin extensions of the robotic arm can place and tie the requisite fine suture lines remotely.

For now, the FDA requires that these experimental operations be performed open-chest, in case of trouble. But once problems — particularly, the constant movement of the patient’s beating heart — have been overcome, the Penn researchers see this as a closed chest procedure.

It then will offer two significant advantages: The overlying sternum will not have to be split, as is currently required to reach the heart through a foot-long incision. Second, the heartbeat will not have to be stopped; external circulatory bypass will not be needed.

This would be safer. It also would significantly reduce the physiological stress and shock that can accompany the current, open-chest method for grafting the half million patients who are operated on for blocked coronary arteries each year.

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